

WHAT IS CLAIMED IS:

1. A sealing structure with a seal member for sealing a double fitting portion where an annular member is fit in the internal surface of an outer member at its outer circumferential surface and is also fit on the outer circumferential surface of an inner member at its internal surface, said sealing structure comprising:

an annular projection axially protruding from an end surface of said annular member at a radially mid position between said outer circumferential surface and said internal surfaces of said annular member;

an annular groove formed on a back surface of a base portion of said seal member, said seal member being held in contact with said end surface of said annular member at said back surface of said base portion, with said annular groove being fit on said annular projection of said annular member;

an annular outer lip axially protruding from the outer circumferential edge portion of said base portion for contact with said internal surface of said outer member;

an annular inner lip axially protruding from the inner circumferential edge portion of said base portion for contact with said outer circumferential surface of said inner member; and

an annular separation zone formed on said end surface of said base portion between said annular outer and inner lips.

2. The sealing structure as set forth in Claim 1, further comprising:

plural engaging poles protruding from said annular projection and each having a head portion; and

plural holes formed in said seal member to pass through said annular separation zone in the axial direction of said seal member for permitting said plural engaging poles to pass therethrough respectively;

wherein said seal member is attached to said end surface of said annular member with said base portion being in abutting contact with said end surface of said annular member, with said annular groove being fit on said annular projection, and

with said plural engaging holes being fit respectively on said engaging poles to be prevented by said head portions from coming off said end surface of said annular member.

3. A combination of a master cylinder device and a brake booster device having a pull type input rod wherein the interior of a brake booster is partitioned by a diaphragm into a constant pressure chamber and a variable pressure chamber; wherein a valve mechanism is provided in a piston secured to said diaphragm and is operable by said input rod for making said variable pressure chamber communicate selectively with the atmosphere and said constant pressure chamber thereby to move said diaphragm back and forth; wherein a master piston is slidably inserted in a master cylinder formed in a cylinder body; and wherein a piston rod passing through said master piston is axially moved rearward with the rearward movement of said diaphragm to generate a pressurized brake pressure;

said combination including the sealing structure as set forth in Claim 1 for sealing the clearance between the internal surface of said master cylinder and the outer circumferential surface of said master piston and the clearance between the internal surface of said master piston and the outer circumferential surface of said piston rod, wherein said cylinder body, said master piston and said piston rod operate respectively as said outer member, said annular member and said inner member defined in Claim 1.

4. The combination as set forth in Claim 3, wherein said sealing structure further comprises:

plural engaging poles protruding from said annular projection formed on said end surface of said master piston which operates as said annular member, and each having a head portion; and

plural holes formed in said seal member to pass through said annular separation zone in the axial direction of said seal member for permitting said plural engaging poles to pass therethrough respectively;

wherein said seal member is attached to said end surface of said master

piston with said base portion being in abutting contact with said end surface of said master piston, with said annular groove being fit on said annular projection formed on said end surface of said master piston, and with said plural engaging holes being fit respectively on said engaging poles to be prevented by said head portions from coming off said end surface of said master piston.

5. A combination of a master cylinder device and a brake booster device having a pull type input rod wherein the interior of a brake booster is partitioned by a diaphragm into a constant pressure chamber and a variable pressure chamber; wherein a valve mechanism is provided in a piston secured to said diaphragm and is operable by said input rod for making said variable pressure chamber communicate selectively with the atmosphere and said constant pressure chamber thereby to move said diaphragm back and forth; wherein first and second master pistons are slidably inserted in a master cylinder formed in a cylinder body; and wherein a piston rod passing through said second master piston and connected to said first master piston is axially moved rearward with the rearward movement of said diaphragm to generate a pressurized brake pressure;

said combination including the sealing structure as set forth in Claim 1 for sealing the clearance between the internal surface of said master cylinder and the outer circumferential surface of said second master piston and the clearance between the internal surface of said second master piston and the outer circumferential surface of said piston rod, wherein said cylinder body, said second master piston and said piston rod operate respectively as said outer member, said annular member and said inner member defined in Claim 1.

6. The combination as set forth in Claim 5, wherein said sealing structure further comprises:

plural engaging poles protruding from said annular projection formed on said end surface of said second master piston which operates as said annular member, and each having a head portion; and

plural holes formed in said seal member to pass through said annular

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separation zone in the axial direction of said seal member for permitting said plural engaging poles to pass therethrough respectively;

wherein said seal member is attached to said end surface of said second master piston with said base portion being in abutting contact with said end surface of said second master piston, with said annular groove being fit on said annular projection formed on said end surface of said second master piston, and with said plural engaging holes being fit respectively on said engaging poles to be prevented by said head portions from coming off said end surface of said second master piston.

7. The combination as set forth in Claim 5, wherein:

a first compression spring is further provided to be seated on at least one spring seat between said first and second master pistons; and

a second compression spring is further provided to pressure said second master piston which has said seal member in abutting contact with said end surface thereof, on the rear surface of said at least one spring seat.